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LVII.—*Descriptions of some new Species of Heterocera from Tropical Africa.* By HERBERT DRUCE, F.L.S. &c.

Fam. Syntomidæ.

*Pseudapiconoma batesi*, sp. n.

*Female*.—Head, collar, and tegulæ chrome-yellow; antennæ black, the base bright red; palpi red; thorax brown; abdomen chrome-yellow, banded with black, the anal segment bright red; legs red. Primaries dark brown, the costal vein bright red from the base almost to the apex; two small chrome-yellow spots edged with red beyond the cell nearest the costal margin; a square chrome-yellow spot at the end of the cell, a small spot below, and a rather large oval-shaped spot nearest the inner margin, all the spots edged with red, the veins red: secondaries uniform chrome-yellow. Under-side very similar to the upperside, the base of the primaries yellow; a round yellow dot nearest the apex; secondaries as above.

Expanse 2 inches.

*Hab.* W. Africa, Bitje, Ja River, Cameroons, 2000 feet, dry season (*G. L. Bates, Mus. Druce*).

*Pseudapicnoma laureola*, sp. n.

*Male*.—Head, tegulæ, thorax, and abdomen pale fawn-colour; collar red, tegulæ edged with red, abdomen banded

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with red on each segment; antennæ black; underside of thorax and upperside of the legs red. Primaries pale fawn-colour, the veins darker in colour; a square-shaped hyaline spot edged with red in the cell, below which is a small round hyaline spot edged with red; beyond the cell a band of five hyaline spots partly cross the wing, the first two spots the smallest, the third and fourth spots considerably larger, the fifth spot small; the fringe fawn-colour: secondaries cream-colour, broadly pink along the inner margin, the fringe fawn-colour at the apex. Underside very similar to the upperside, but paler in colour.—*Female* very similar to the male, but larger, the secondaries much redder.

Expanse, ♂  $1\frac{3}{4}$ , ♀  $2\frac{1}{2}$  inches.

*Hab.* West Africa, Bitje, Ja River, Cameroons, 2000 feet, wet season (*G. L. Bates, Mus. Druce*).

Allied to *Pseudapiconoma specuirgera*, Grunb.

*Pseudapiconoma umbra*, sp. n.

*Male*.—Head, collar, tegulæ, and thorax dark brown; palpi and antennæ black; abdomen greyish brown, each segment banded with chrome-yellow; the underside and the legs dark brown. Primaries dark brown; a small hyaline dot in the cell, one below, and five hyaline spots crossing the wing beyond the cell; the fringe dark brown: secondaries dark brown, pinkish at the base and along the inner margin; three small hyaline spots below the end of the cell, the first minute, the second the largest; the fringe dark brown. The underside the same as the upperside, except that the inner margin of the primaries is pink from the base to the anal angle.

Expanse  $2\frac{1}{2}$  inches.

*Hab.* West Africa, Bitje, Ja River, Cameroons, 2000 feet, wet season (*G. L. Bates, Mus. Druce*).

This species differs from all others known to me by having hyaline spots on the secondaries.

*Metarctia noctis*, sp. n.

*Male*.—Head, antennæ, collar, tegulæ, underside of the abdomen, and legs reddish brown; thorax and abdomen black. Primaries black, the costal margin edged with yellowish brown; the fringe black: secondaries semihyaline black, darkest at the apex and along the inner margin. On the underside the wings are yellowish at the base.

Expanse  $1\frac{1}{4}$  inch.

*Hab.* Abyssinia, Dire Daoua (*G. Kristensen, Mus. Druce*).

*Metarctia ferrigera*, sp. n.

*Female*.—Head, collar, tegulæ, thorax, and abdomen greyish brown, antennæ and palpi black, legs reddish brown. Primaries greyish brown, thickly irrorated with darker brown scales; a dark brown spot at the end of the cell, one beyond and one below the cell; a marginal row of dark brown spots extends from the apex to the anal angle: secondaries pale yellow.

Expanse  $2\frac{1}{2}$  inches.

*Hab.* W. Africa, Bitje, Ja River, 2000 feet, dry season (*G. L. Bates, Mus. Druce*).

## Fam. Agaristidæ.

*Xynthospilopteryx batesi*, sp. n.

*Female*.—Head, palpi, antennæ, collar, tegulæ, thorax, legs, and the abdomen black; head, palpi, collar, and tegulæ spotted with white. Primaries black, crossed near the apex by a wide chrome-yellow band that does not extend to the outer margin; a large chrome-yellow spot at the end of the cell, a larger one below the cell, and a small round spot at the anal angle; several blue spots on the costal margin and two blue streaks between the chrome-yellow bands; two chrome-yellow streaks on the inner margin, the marginal one the largest; the fringe white at the apex, the fringe along the outer margin black: secondaries deep black, the fringe white. Underside: primaries as above; secondaries black, with a wide yellow band along the costal margin extending from near the base almost to the apex; the fringe of both wings white.

Expanse  $3\frac{1}{2}$  inches.

*Hab.* West Africa, Bitje, Ja River, Cameroons, 2000 feet, wet season (*G. L. Bates, Mus. Druce*).

This species is allied to *Xynthospilopteryx grandis*, Druce, from Old Calabar.

*Xynthospilopteryx comaria*, sp. n.

*Male*.—Head, palpi, collar, and tegulæ black, spotted with white; antennæ black; thorax black, with two central white spots, the base of the thorax clothed with chrome-yellow hairs; abdomen brownish black, the upperside and sides spotted with white, the underside black, banded with white; legs black, banded with yellow and white. Primaries black, a white band near the apex crossed by black veins; a square

white spot at the end of the cell ; an oval-shaped white spot below, a large white spot close to the base, and a minute white dot at the base ; the fringe black : secondaries carmine-red, shading to chrome-yellow near the apex ; the apex and outer margin broadly bordered with black ; the fringe black. Underside : primaries chrome-yellow, the costal margin, a round spot in the cell, a wide bar at the end of the cell, the apex, and outer margin all black : secondaries very similar to the upperside, but the black mark at the end of the cell is much more distinct ; the fringes of both wings black.

Expanse 3 inches.

*Hab.* West Africa, Bitje, Ja River, Cameroons, 2000 feet, dry season (*G. L. Bates, Mus. Druce*).

#### Fam. Lasiocampidæ.

##### *Lasiocampa noctis*, sp. n.

*Male*.—Head, antennæ, palpi, collar, and thorax black ; abdomen black, the underside reddish brown ; legs brown. Primaries and secondaries brownish black ; a blackish-grey ill-defined mark beyond the cell ; the fringes of both wings black. Underside : primaries fawn-colour, the costal margin, apex, and outer margin brownish black : secondaries fawn-colour, thickly irrorated with brown scales ; a waved central brown line crossing the middle of the wing from the costal to the inner margin ; several indistinct brown spots near the anal angle.

Expanse 2 inches.

*Hab.* W. Africa, Upper Kasai District, Congo Free State (*P. Landbeck, Mus. Druce*).

Allied to *Lasiocampa heres*, Schaus, from Sierra Leone.

##### *Lomadonta albisigna*, sp. n.

*Male*.—Head, collar, and tegulæ yellowish white ; antennæ pale brown ; thorax and upperside of the abdomen pale yellowish brown ; the underside of the thorax, abdomen, and legs white. Primaries pale yellow, crossed with fine waved reddish lines ; a square white spot below the end of the cell and a wide greyish-brown band crosses the wings near the apex from the costal to the outer margin ; the fringe alternately yellow and greyish brown : secondaries pure white, clouded with pale yellowish brown at the apex and partly round the outer margin. Underside : both wings pure white ; primaries with the greyish-brown band as above, the apex shaded with yellow.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* West Africa, Bitje, Ja River, Cameroons, 2000 feet, dry season (*G. L. Bates, Mus. Druce*).

Allied to *Lomadonta johnstoni*, Auriv., but very distinct.

*Trabala charon*, sp. n.

*Male*.—Head, collar, tegulæ, thorax, and abdomen pale yellowish green; antennæ pale brown. Primaries pale green, a small black dot at the end of the cell, a faint curved pale brown line close to the base, a curved zigzag fine brown line beyond the cell extending from the costal to the inner margin, where it joins a cluster of brownish scales; a submarginal row of small brown spots extending from the apex to the inner margin near the anal angle: secondaries pale green, with the pale brown lines continued as on the primaries to the inner margin. Underside very similar to the upperside. —*Female* similar to the male; the brown lines are more distinct on both wings, but the submarginal spots are fainter.

Expanse, ♂  $1\frac{1}{2}$ , ♀ 3 inches.

*Hab.* West Africa, Bitje, Ja River, Cameroons, 2000 feet, dry season (*G. L. Bates, Mus. Druce*).

Allied to *Trabala sulphurea*, Koll.

Fam. Notodontidæ.

*Macronadata viridis*, sp. n.

*Male*.—Head, collar, tegulæ, and thorax pale olive-green; antennæ pale brown, deeply pectinated, the shaft spotted with white; palpi brown, clothed with greenish-white hairs; legs brown and white; abdomen brownish white. Primaries pale olive-green, the costal margin white, the lower half of the outer margin and the apex broadly yellow; two faint brown waved lines cross the wing about the middle from the costal to the inner margin; an indistinct submarginal brown line extends from the apex to the anal angle; the fringe brown and white: secondaries pale yellow, the costal margin and apex pale greyish brown, the fringe white. Underside of primaries blackish grey, yellowish at the anal angle and along the inner margin; secondaries greyish white, a black spot at the end of cell and a very faint brown submarginal line from the apex to the inner margin; the costal half of the wing is irrorated with brown scales.

Expanse 3 inches.

*Hab.* W. Africa, Bitje, Ja River, Cameroons, 2000 feet, wet season (*G. L. Bates, Mus. Druce*):

Allied to *M. collaris*, Moeschl., and *M. brunneidorsa*, Holl., but very distinct.

Fam. Geometridæ.

*Pitthea flavimargo*, sp. n.

*Male*.—Head, antennæ, palpi, tegulæ, and thorax black; front of the head and collar white; abdomen above bright glossy blue; underside of the thorax and abdomen chrome-yellow; legs black. Primaries black, partly crossed near the apex by a narrow semihyaline white streak; the base of the wing broadly semihyaline white, shot with metallic blue at the base: secondaries bright metallic blue, broadly bordered with black; a wide semihyaline white band extends from the middle of the costal margin to the end of the cell, where it comes to a point. Underside: primaries very similar to the upperside, but shaded with brown along the costal margin and at the apex: secondaries chrome-yellow, the semihyaline white band the same as above, but edged with black; the outer margin from the apex to the anal angle edged with black.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* W. Africa, Bitje, Ja River, Cameroons, 2000 feet, dry season (*G. L. Bates, Mus. Druce*).

*Pitthea eximia*, sp. n.

*Male*.—Head, antennæ, palpi, tegulæ, and thorax black; collar dark orange; front of head white; abdomen bright metallic blue; underside of the thorax and abdomen dark orange; legs bluish black. Primaries black, glossed with bright blue, the base and a small band near the apex white: secondaries white, broadly bordered with black at the apex and anal angle, the white and black glossed with blue. Underside similar to the upperside, the costal margin and the apex of the primaries and the apex of the secondaries shaded with yellowish brown; the fringes of both wings black.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* W. Africa, Bitje, Ja River, Cameroons, 2000 feet, dry season (*G. L. Bates, Mus. Druce*).

*Pitthea fuliginosa*, sp. n.

*Male*.—Head, antennæ, collar, tegulæ, and thorax black;

abdomen black above, yellowish brown on the underside ; legs black. Primaries black, crossed by two semihyaline dusky bands, the first near the apex, the second close to the base ; the fringe black : secondaries black, with a central dusky hyaline band crossing the wing from the costal to the outer margin, where it ends in a yellow spot, the apex edged with yellow. Underside very similar to the upperside, but the inner half of the secondaries streaked with yellow.—*Female* very similar to the male, but rather larger and without any yellow on the upperside of the secondaries.

Expanse, ♂  $1\frac{3}{4}$ , ♀ 2 inches.

*Hab.* W. Africa, Udamba, Kuila River, S.W. Congo State (*J. S. Boussfield*) ; Upper Kasai District, Congo Free State (*P. Landbeck, Mus. Druce*).

Allied to *Pitthea trifasciata*, Dewitz, but very distinct.

*Pitthea albolineata*, sp. n.

*Male*.—Head, palpi, antennæ, tegulæ, thorax, and abdomen black, front of the head white, collar yellow ; underside of the abdomen yellow ; legs black. Primaries black, crossed near the base from the costal to the inner margin by a narrow creamy white band ; a creamy white band near the apex, that does not extend to either margin : secondaries black, a narrow creamy white central band extends from the middle of the costal margin almost to the outer margin. Underside : primaries very similar to the upperside, but streaked with yellow at the base ; secondaries as above, streaked with yellow at the base and along the inner margin, the white central line broadly bordered with yellow.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* West Africa, Bitje, Ja River, Cameroons, 2000 feet, dry season (*G. L. Bates, Mus. Druce*).

*Aletis sapor*, sp. n.

*Male*.—Head, antennæ, and thorax black ; collar white ; tegulæ black, edged with white ; abdomen black above, spotted with white on each side ; the underside red ; legs black. Primaries brick-red, the apex broadly black ; four small white spots cross the wing close to the apex ; the fringe black : secondaries brick-red, edged with black from the apex to the anal angle, a marginal row of small white dots extends from the apex to the anal angle. Underside the same as above, but lighter in colour.—*Female* the same as the male,

with all the white spots considerably larger, also redder on the underside.

Expanse, ♂ 2, ♀  $2\frac{1}{4}$  inches.

*Hab.* West Africa, Bitje, Ja River, Cameroons, 2000 feet, dry season (*G. L. Bates, Mus. Druce*).

*Aletis landbecki*, sp. n.

*Male.*—Head and antennæ black, front of head and collar white; tegulæ and thorax orange-yellow; abdomen grey, striped with black, the underside and the legs greyish white. Primaries, the basal two-thirds of the wing dark orange-yellow, the apical third black; a large oval-shaped white spot near the apex crossed by the black veins; the fringe black: secondaries dark orange-yellow; a minute black dot at the end of the cell; the apex and outer margin bordered with black; three white spots on the black border close to the anal angle. Underside very similar to the upperside, but paler in colour.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* West Africa, Upper Kasai District, Congo Free State (*P. Landbeck, Mus. Druce*).

*Anmenopsyche agis*, sp. n.

*Male.*—Head, antennæ, and thorax black; collar and tegulæ white; abdomen above black, spotted with white; the underside and legs yellowish white. Primaries white, the base and half the costal margin very pale yellow, the costal margin from the middle to the apex and outer margin black: secondaries white, the base and inner margin broadly pale yellow, thickly irrorated with black scales from below the cell to the anal angle; the outer margin from the apex to the anal angle bordered with black, deeply dentated on the inner side. Underside the same as above.

Expanse 2 inches.

*Hab.* Uganda (*Simon, Mus. Druce*).

*Anmenopsyche thestis*, sp. n.

*Male.*—Head and antennæ black; collar white; tegulæ black, edged with white; thorax black, with three large white spots close to the base; abdomen above grey, the segments edged with yellow, and a central row of white spots extends from the base to the anus; underside of the abdomen yellowish white; legs white. Primaries white, the costal margin to the end of the cell, the base, and inner



margin pale yellow, the apical third of the wing black; a row of four white spots crosses the wing from near the apex to the anal angle; the fringe black: secondaries pale yellow, broadly edged with black; a marginal row of white spots extending from the apex to the anal angle. Underside the same as above, but rather paler in colour.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* West Africa, Upper Kasai District, Congo Free State (*P. Landbeck*, *Mus. Druce*).

### Fam. Nyctemeridæ.

#### *Eohemera albofasciata*, sp. n.

*Male*.—Head and collar bright red; tegulæ black, edged with red; thorax black; antennæ pectinated black; abdomen red, with a black spot on each segment; underside of abdomen and legs yellowish brown. Primaries dark brown, the veins pale brown; a white band crosses the wing beyond the cell from the costal margin to the anal angle; the fringe brownish black: secondaries bright red, the apex and outer margin broadly bordered with black; two black streaks extend from base along the inner margin to the anal angle. Underside very similar to the upperside, but slightly paler in colour.—*Female* very like the male, but larger, the secondaries brighter in colour and shading off to chrome-yellow on the costal margin; the antennæ are simple.

Expanse, ♂  $1\frac{1}{2}$ , ♀  $2\frac{1}{4}$  inches.

*Hab.* West Africa, Bitje, Ja River, Cameroons, 2000 feet, wet season (*G. L. Bates*, *Mus. Druce*).

Allied to *Eohemera fulleri*, Druce.

### Fam. Ægeridæ.

#### *Ægeria nobilis*, sp. n.

*Male*.—Head, palpi, antennæ, collar, tegulæ, thorax, and abdomen black; underside of the abdomen and legs brown. Primaries dark brown, palest near the apex; the fringe dark brown: secondaries creamy white, the fringe dark brown. Underside very similar to the upperside, the primaries much paler in colour.

Expanse  $1\frac{1}{2}$  inch.

*Hab.* German East Africa (*Mus. Druce*).

Fam. *Zygænidæ*.*Tassia? amata*, sp. n.

*Male*.—Head and antennæ black; collar and tegulæ metallic green; thorax, abdomen, and legs glossy black. Primaries black, shaded with metallic red and gold from the base to the end of the cell; the fringe black: secondaries glossy blue-black; a small hyaline spot at the anal angle. Underside of both wings glossy black.

Expanse  $1\frac{3}{4}$  inch.

*Hab.* Abyssinia, Dire Daoua (*G. Kristensen, Mus. Druce*).

LVIII.—*A Revision of the Genus Pelecorhynchus of the Family Tabanidæ.* By GERTRUDE RICARDO.

*PANGONINÆ*.

## PELECORHYNCHUS, Macquart.

*Pelecorhynchus*, Macq., Dipt. Exot.\* Suppl. iv. p. 332 (1850); Loew, Dipt. Südafrik. (1860); Ricardo, Ann. & Mag. Nat. Hist. (7) v. p. 101 (1900).

*Cenomyga*, Thoms., Eugen. Resa, p. 449 (1868).

The species of this genus are at once distinguished by the hatchet-shape of proboscis, by the curved anal vein of wing and open anal cell, and by the subulated antennæ. The distribution of the species is interesting, the known species all being found in Australia and Chile (S. America). The species now number eight, three of them being described for the first time; only two out of the eight come from Chile.

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|---|---------------------------------|
| 1. Wings marked with dark spots or bands . . . . .  | 2.                              |
| Wings not marked with dark spots or bands . . . . .   | 4.                              |
| 2. The whitish bands of abdomen interrupted, the thorax with two white spots on black stripes . . . . .                         | <i>crystaloides</i> , Walker.   |
| The whitish bands of abdomen entire, no spots on thorax . . . . .   | 3.                              |
| 3. Spots of wings pale brown, pubescence on anterior part of sides of thorax blackish, hairs on base of cheeks yellow . . . . . | <i>maculipennis</i> , Macquart. |

\* The original pagination of Macquart's work 'Diptera Exotica' is used throughout this paper.